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Two New Genera of Phalangodinae (Opiliones, Phalangodidae)
from Eastern Kalimantan, Borneo

With 2 Text-figures

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ABSTRACT *Parabupares* n. gen. is described with its type-species, *P. robustus* n. sp., and *Sotekia* n. gen. with its type-species, *S. minima* n. sp.

Recently I have been able to examine opilionid specimens captured by Prof. J. AOKI and Mr. H. HARADA, Yokohama National University, in Eastern Kalimantan, Borneo. Included in the material were the two new genera described below.

***Parabupares* n. gen.**

Phalangodinae: Eye tubercle wide, tipped with a blunt median hump and a long spine above on each side, widely separated from anterior margin of carapace. First scutal area without a median furrow. Stigma visible. First cheliceral segment with a dorsal elevation. Palpi robust, femur without a medial distal spine. Tarsal segmentation 5:9:5:6. Distitarsus of first and second legs with two segments.

Type-species: *Parabupares robustus* n. sp.

Notes. In the character combination that the eye tubercle has one pair of spines above, the second distitarsus is two-segmented and the first scutal area is not divided, this genus agrees well with *Bupares* THORELL, 1899. However, the former differs from the latter in having a median blunt hump on the eye tubercle and a distinct dorsal protuberance on the first cheliceral segment and in lacking a medial distal spine on the palpal femur.

***Parabupares robustus* n. sp.**

(Fig. 1 A-I)

Material. E. Kalimantan: 1♂ (holotype), 35 km of Balikpapan, sifting fallen leaves and soil, 6-I-1981, J. AOKI and H. HARADA leg. In the S. SUZUKI collection.

Description. Measurements: ♂—Body 2.7 mm long (scute 2.3 mm), 1.8 mm wide. Palp: tr 0.3, fe 2.1, pa 1.2, ti 1.0, ta 0.9, total 5.5 mm. Length of femora I 1.1, II 1.9, III 1.2, IV 1.5 mm. Total length of legs I 5.2, II 8.3, III 5.3, IV 7.2 mm. Tarsal segments I 5, II 9, III 5, IV 6. Segments of distitarsus I 2, II 2.

Male: Carapace unarmed, smooth. Eye tubercle wide, tipped with a blunt median hump and armed with one pair of long horn-shaped spine above, widely separated from anterior margin of carapace. First scutal area is without a median line; first to fourth areas with two to four hair-tipped tubercles on median region, hind margin of scute with a row of numerous spine-shaped tubercles on the entire length. Three free tergites each with a row of small tubercles, one at the extremity of each tergite enlarged into a strong spine. First coxae with coarse hair-tipped tubercles; second to fourth coxae and free sternites smooth, only with sparse hairs.

Chelicerae normal, proximal segment with a dorsal protuberance, which bears a circle of small tubercles, one at anterior medial angle slightly larger; distal segment tuberculated as in Fig. 1 G.

Palpi robust, especially so femur. Trochanter with one dorsal, one medial

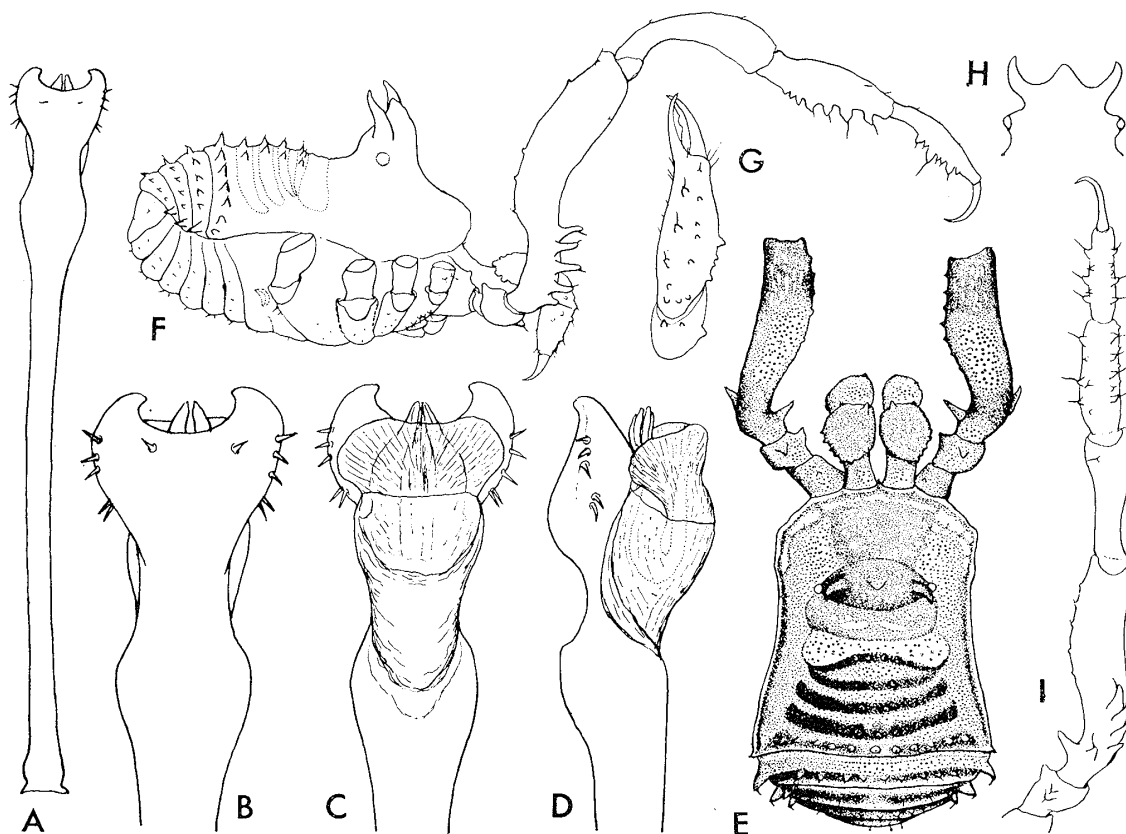


Fig. 1. *Parabupares robustus* n. sp., male holotype. — A, Ventral view of entire penis; B, ventral, C, dorsal, D, lateral aspect of distal portion of penis; E, dorsal, F, lateral view of body; G, dorsal view of right chelicera; H, anterior view of eye tubercle; I, ventral view of left palp, schema. (A $\times 65$; B–D $\times 125$; E–F, H $\times 15$; G $\times 25$).

and one or two ventral spines. Femur swollen distally, at base acutely bent inward, then bent ventrally; ventral side armed with a proximal row of five strong spines and a medial basal spine; medial side with a longitudinal row of six to seven granules but without a distinct spine. Patella longer than usual, strongly curved, unspined. Tibia and tarsus armed with rather short spines, spination as in Fig. 1 F, I.

Legs clothed with sparse hairs, otherwise unarmed. Third and fourth tarsi with double simple untoothed claws.

Penis as shown in Fig. 1 A–D. Shaft slender and long, widened at subdistal portion, then compressed laterally, then widened again, widely indented distally. Distal portion of ventral plate clothed with short spines; disposition of these spines as shown in Fig. 1 B.

Coloration: Entire body of animal rusty yellow with dark brown markings as follows: median region of carapace including entire eye tubercle marked with a wide stripe; each scutal area with a transverse band, and so on the posterior margin and each free tergite, the band usually interspaced at median; ventrally reticulations obscurely developed on coxae; free sternites with a band marking on each side. Appendages rusty yellow, mostly with darker mottlings or reticulations; femur of palpi dark brown at both extremities, interspace pale; trochanters and tarsi of legs paler.

Sotekia n. gen.

Phalangodinae: Eye tubercle of the form of low blunt cone and situated at middle of carapace. Carapace with a large pointed tubercle at each anterior corner. First scutal area without a median line. All five areas and three free tergites with a transverse row of small tubercles. Abdominal spiracles visible. First cheliceral segment with a dorsal elevation. Femur of palp with two medial distal spines. Tarsal segmentation 5: more than 6: 5: 6. Distitarsus of first leg with two segments; second with three (exceptionally four).

Penis elongated, swollen distally, clothed with strong spines. Ovipositor short, two short distal lobes with four long spines.

Type-species: *Sotekia minima* n. sp.

Notes. The present new genus has no near relatives in tropical Asia but seems to be closest to *Phalangomma* ROEWER, 1949 from Virginia. Actually, these two genera show the following character combination in common: 1) The eye tubercle is widely separated from the anterior margin of carapace, 2) the abdominal stigma is visible, 3) the presence of two medial distal spines on the palpal femur, 4) the absence of a median line on the first scutal area, and 5) distitarsus I with two segments, II with three. However, the presence of the tarsal segmentation 5: more than 6: 5: 6 (instead of 4: more than 6: 4: 4) and of an enlarged dorsal protuberance on the proximal cheliceral segment (in *Phalangomma* it is not present) is distinct enough to separate the two genera. Also, the occurrence of *Sotekia* in an utterly

different zoogeographic region will support its validity.

Sotekia minima n. sp.

(Fig. 2 A-H)

Material. E. Kalimantan: 1♀ (paratype), 2 pulli, Sotek, sifting fallen leaves and soil, 28-XII-1980; 1♂ (holotype), 5 km of Sotek, by Tullgren funnel, 29-XII-1980. Both collections were made by J. AOKI and H. HARADA. In the S. SUZUKI collection.

Description. Measurements: ♂ (in parentheses ♀)—Body 1.2 (1.5) mm long, 0.9 (0.9) mm wide. Length of femora I 0.6, II 0.7, III 0.7, IV 0.7 mm. Total length of legs I 2.4, II 4.0, III 2.7, IV 3.1 mm. Tarsal segments I 5 (5), II 12 (12L, 13R), III 5 (5), IV 6 (6). Segments of distitarsus I 2 (2), II 3 (3L, 4R). Length of penis 0.5 mm.

Male: Of the form as shown in Fig. 2 B. Carapace, excepting a single bluntly pointed tooth at anterior angle, very finely granular. Eye tubercle somewhat elevated at median (Fig. 2 E), distinctly separated from the anterior margin. Five scutal areas indistinctly defined. First area without a median line. All scutal areas and three free tergites each with a row of small tubercles, tubercles slightly larger on the hind margin of scute, remaining surface finely granular. Anal plate with scattered small tubercles. Coxae of all legs finely granular with low tubercles,

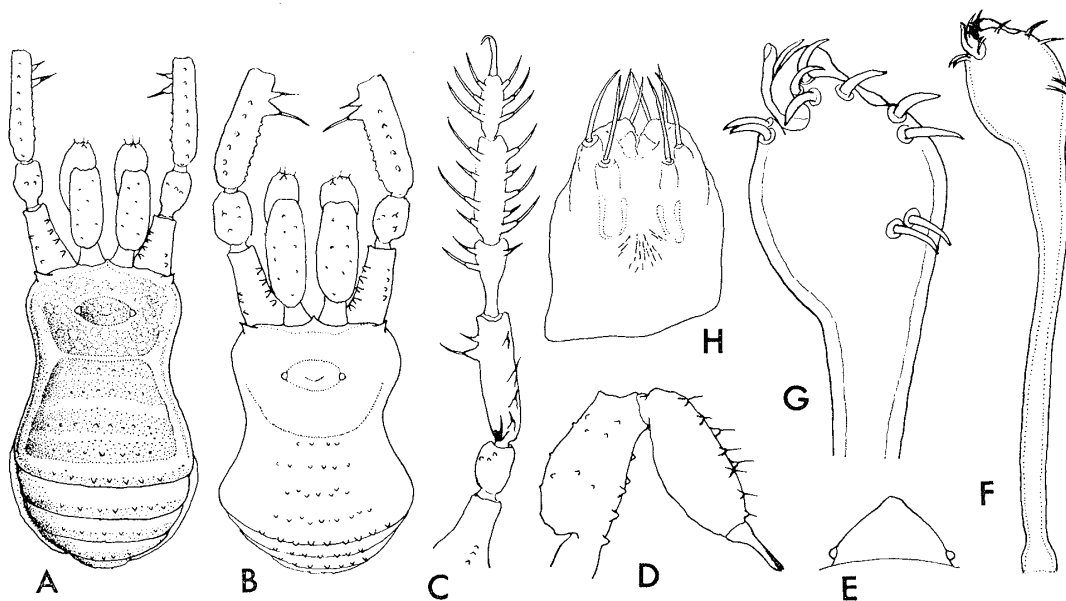


Fig. 2. *Sotekia minima* n. sp. — A, Dorsal view of female; B, dorsal view of male; C, ventral view of left palp, male; D, lateral view of right chelicera, male; E, anterior view of eye tubercle, male; F, entire penis, lateral; G, distal portion of penis, lateral; H, ovipositor. (A-C $\times 25$; D-E $\times 40$; F $\times 125$; G $\times 250$; H $\times 80$).

tubercles larger on first coxa. Third coxa with a row of small tubercles on anterior and posterior margins. Free sternites with a transverse row of small hair-tipped tubercles.

Chelicerae: Proximal segment with an enlarged dorsal protuberance, which clothed with scattered granules, ventrally with a row of two or three tubercles on both sides; distal segment frontally with hair-tipped tubercles, tubercles arranged more or less in two longitudinal series.

Palpi: Coxa dorsally with a medial row of four to five tubercles and a group of three to four lateral ones (Fig. 2 B). Trochanter dorsally and ventrally with some small tubercles. Femur dorsally with a longitudinal row of small tubercles, medial-distally with two spines, first one stronger, which is followed by a longitudinal row of small tubercles, ventrally with five spines. Patella, tibia and tarsus spined as shown in Fig. 2 C.

Legs short; trochanters, femora, patellae and tibia somewhat granular, metatarsi and tarsi only with short hairs.

Penis (Fig. 2 F–G): Shaft elongate, swollen distally. Distal portion clothed with strong spines. Disposition of these spines as in Fig. 2 G.

Coloration: Entire body light rusty yellow, with faint dark brown reticular markings on carapace; lateral margins of abdominal scute slightly darkened, and so hind margin and each free tergite. Cheliceral segments reticulated above. Palpi except for trochanter with dark brown markings. Legs rusty yellow, except for tarsi with dark brown mottlings.

Female (Fig. 2 A): Similar to the male in appearance, but with slightly larger body. Chelicerae and palpi less strong than in the male.

Ovipositor has the form as shown in Fig. 2 H.

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